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Avalanche Notes

U.S. Forest Service
Westwide Avalanche Network

JANUARY 1992

January's weather pattern over the western U.S. was an unwelcome repeat of December's: a split jet stream shunted all storms far to the north or south. Alaska lay in the northern storm track, which gave Eaglecrest (near Juneau) measurable snow or rain on 27 of 31 days. An extended storm hit Alyeska on the 1st-11th, and the heaviest snow came on the 6th-8th when 44" fell. Another 28" fell on the 16th-17th, and Alyeska finished the month with 180% of normal.

Outside of Alaska, not a single data site reached its average January snowfall. In the Cascades of Washington, Stevens Pass, Mt. Rainier, and Crystal Mt. were all about 75% of normal. A storm packing snow and heavy rain struck this region on the 21st-31st. Stevens Pass recorded almost 22" of water during this storm, while Alpentel and Snoqualmie Pass got 13". A widespread avalanche cycle swept the Cascades from the 21st-31st. In Oregon, Mt. Hood Meadows recorded only 54% of normal snows, but it too experienced an avalanche cycle late in the month: On the 29th, a WS-N-5 avalanche fell 3,000' vertical down Clark Canyon, adjacent to the ski area.

In the Sierra of California, Alpine Meadows recorded 25% of normal snows, and Squaw Valley, 15%. In the Wasatch of Utah, no snow fell after the 15th, so that Snowbird ended up with 44% of normal. Sun Valley, ID saw no snow after the 7th and got but 28% for the month. In the Tetons of Wyoming, Teton Pass got 20% while Jackson Hole recorded 37%. In Montana, Bridger Bowl received 41%; Big Sky, 68%; and Big Mountain (lying much farther north), 84%.

In Colorado, Gothic (with 23% of normal) and Sunlight (with 28%) both suffered their driest January of record. Wolf Creek received no snow after the 8th and totalled 38% for the month. All other sites received 40-84% of normal, with the exception of Vail and Winter Park/Mary Jane. These two sites recorded 30" of snow on the 7th-9th, which helped boost Vail to 98%, and Winter Park to 88%. Taos, NM was dry from the 13th-31st and wound up with 50% of normal.

Twelve avalanche incidents were reported in January. Three were notable: On the 2nd at Crystal Mt., WA, an out-of-bounds skier sustained a fractured vertebra when he triggered an avalanche and fell down a 48-degree chute. On or about the 3rd at Seward, AK, a road worker clearing debris from one avalanche was struck by another. He was injured and his front-end loader was damaged. And on the 4th on Big Four Mt., WA, three climbers were buried by an avalanche while they were inside an ice cave. A fourth climber -- a woman 8 months pregnant -- was caught outside the cave and swept downhill. She and her baby escaped serious injury. Meanwhile, the three men in the cave began the arduous task of digging out -- with a pocket knife! They emerged 3 hours later, unhurt but exhausted after tunneling through 10-20 feet of snow.

Through January, 33 incidents have resulted in 38 people caught, 12 partly buried, 1 buried, and 5 injured. Three vehicles and two property sites have been damaged. Damage estimate is \$50,000 for the year.

The second announcement for the ISSW was mailed in February. If you find yourself not on that mailing list and want to be, drop a note to ISSW'92, P.O. Box 733, Fort Collins, CO 80522.

U.S. FOREST SERVICE
WESTWIDE WEATHER AND AVALANCHE NETWORK
FORT COLLINS, COLORADO

JANUARY 1992
SUMMARY OF WEATHER AND SNOW CONDITIONS

AREA	SNOWFALL				WATER EQUIVALENT								SNOW DEPTH				TEMPERATURE			WIND SPEED AND DIRECTION					
	TOTAL SNOW- FALL IN.	AVG DEN	MAX		TOTAL WATER IN.	MAX		NUMBER OF DAYS				D A MAX IN.	D T E	MIN IN.	AVG IN.	MEAN MAX DEGREES F	MEAN MIN F	AVG F	AVG FOR MO.	6 HOUR		FASTEST HOUR DIR.	D A E		
			IN	D		IN	D	GE	GE	GE	GE									PERIODS	GE			GE	
																									15
CENTRAL AND SOUTHERN ROCKY MOUNTAINS																									
ARAPAHOE BASIN, COLO	18.3	.05	6	8	.99	.35	8	2	2	0	0	44	8	36	40	23.5	3.3	13.4	12.8	40	17	48	340	24	
ASPEN HIGHLANDS, CO	26.5	.06	7	8	1.60	.43	8	6	4	0	0	42	8	31	35	28.5	11.8	20.1	4.4	0	0	17	320	15	
ASPEN MOUNTAIN, COLO	29.0	.07	9	7	1.94	.90	7	7	3	1	0	49	8	35	42	28.8	9.9	19.3	6.0	3	0	28	170	4	
BEAR LAKE, RMNP, CO	18.7	.08	4	8	1.46	.25	7	9	3	0	0	32	14	24	29	25.6M	13.7M	19.6M	--	--	--	--	--	--	
BERTHOUD PASS, COLO	33.8	.05	9	8	1.81	.52	8	6	2	1	0	49	18	36	44	23.4	1.7	12.6	11.6	36	16	45	300	24	
BRECKENRIDGE, COLO	22.9	.09	6	8	2.15	.80	8	8	4	1	0	40	13	33	37	19.5	4.9	12.2	17.9	79	52	43	270	22	
COPPER MTN, COLO	22.5	.06	4	8	1.46	.45	8	7	1	0	0	39	15	31	36	23.4	5.3	14.3	12.2M	37M	10M	35	280	22	
CRESTED BUTTE, COLO	17.0	.07	8	7	1.25	.40	7	7	2	0	0	38	7	28	32	23.9M	9.7M	16.8M	7.7M	7M	0M	25	280	22	
GOTHIC, COLO	14.2	.06	5	5	.92	.36	7	3	2	0	0	40	7	33	36	27.4	-1.2	13.1	--	--	--	--	--	--	
MONARCH, COLO	38.4	.05	12	7	1.92	.50	7	7	4	2	0	47	7	33	38	24.4	8.3	16.4	16.8M	67M	54M	50	320	22	
POWDERHORN, COLO	23.0	--	7	7	--	--	--	--	--	--	--	44	7	35	39	28.1	5.0	16.5	--	--	--	--	--	--	
PURGATORY, COLO	21.1	.07	11	7	1.52	.80	7	4	3	1	0	55	7	41	45	25.1	8.2	16.6	--	--	--	20	310	22	
RED MTN PASS U.S.550	22.5	.08	7	7	1.90	.65	7	6	5	1	0	51	7	41	46	27.2	5.8	16.5	--	--	--	--	--	--	
SKI COOPER, COLO	29.0	--	7	7	--	--	--	--	--	--	--	39	14	27	33	--	--	--	--	--	--	--	--	--	
SUNLIGHT, COLO	12.0	.06	4	7	.76	.25	7	5	1	0	0	35	8	29	32	25.8	10.6	18.2	--	--	--	--	--	--	
TAOS, NEW MEXICO	22.5	.07	7	7	1.50	.60	7	6	4	1	0	68	8	58	61	26.6	11.3	18.9	8.2M	12M	4M	31	130	12	
TELLURIDE, COLO	18.1	.06	7	7	1.17	.55	7	4	1	1	0	46	8	35	38	25.7	9.9	17.8	--	--	--	--	--	--	
VAIL, COLO	62.0	.05	19	8	3.29	.90	8	11	7	1	0	57	8	33	46	21.3	8.5	14.9	6.9	1	0	19	50	14	
WINTER PARK 1E, COLO	29.8	.06	10	8	1.74	.66	8	5	3	1	0	37	8	27	32	27.6	1.1	14.4	--	--	--	--	--	--	
WINTER PARK S.A., CO	58.5	.04	18	8	2.39	.72	8	11	4	1	0	53	8	36	44	18.9	6.7	12.8	6.3M	6M	2M	56	350	24	
WOLF CREEK, COLO	25.5	.07	12	7	1.85	.80	7	5	3	2	0	73	8	60	63	31.3	8.9	20.1	14.0	53	27	44	30	22	
INTERMOUNTAIN																									
BIG SKY, MONT	32.0	--	8	14	--	--	--	--	--	--	--	50	16	35	41	27.5M	13.3M	20.4M	--	--	--	--	--	--	
BIG MOUNTAIN, MONT	58.0	--	12	24	--	--	--	--	--	--	--	86	30	57	68	26.3	16.1	21.2	--	--	--	--	--	--	
BRIDGER BOWL, MONT	26.0	.05	8	14	1.39	.60	17	4	2	1	0	57	17	43	49	33.4	17.2	25.3	15.3	67	21	32	280	15	
GRAND TARGHEE, WYO	27.0	.07	6	14	1.82	.75	15	5	3	1	0	--	--	--	--	--	--	--	--	--	--	--	--	--	
JACKSON HOLE 1, WYO	31.7	.09	8	14	2.79	.80	24	7	6	1	0	54	17	46	49	25.6	17.9	21.7	16.1	73	26	49	270	25	
PARK WEST, UTAH	17.0	.06	5	7	1.10	.40	7	3	3	0	0	34	8	25	28	30.8	19.5	25.2	10.3	26	6	46	170	6	
SCHWEITZER BASIN, ID	65.0	--	10	28	--	--	--	--	--	--	--	85	30	54	65	26.2	19.4	22.8	--	--	--	45	210	2	
SNOWBIRD, UTAH	37.0	.06	7	15	2.22	.51	15	7	4	1	0	56	15	45	49	31.9	16.5	24.2	19.0M	76M	48M	--	--	--	
SUN VALLEY, IDAHO	12.0	.11	6	6	1.30	.57	6	5	2	1	0	42	7	32	36	26.7	17.6	22.2	10.8	30	7	30	310	22	
TETON PASS, WYO 22	11.0	.07	3	15	.77	.19	13	4	0	0	0	--	--	--	--	25.5M	14.6M	20.0M	--	--	--	--	--	--	
WEST COAST																									
ALPENTAL, WASH	22.0	.10	9	2	14.30	3.74	24	11	10	7	5	58	21	39	50	34.5	25.5	30.0	13.2	49	28	--	--	--	
ALPINE MEADOWS, CAL	17.0	.10	7	5	1.71	.74	5	5	3	1	0	35	7	26	29	39.4	25.7	32.6	24.4	104	92	70	60	17	
ALYESKA, ALASKA	139.5	.09	20	7	13.56	1.91	10	17	12	8	5	112	8	88	103	30.2	21.4	25.8	4.7	0	0	17	120	16	
CRYSTAL MTN 1, WASH	65.7	.07	8	29	10.23	3.33	28	18	14	5	2	49	29	29	41	33.2	24.2	28.7	16.6	75	52	50	260	24	
CRYSTAL MTN 2, WASH	53.2	.13	8	16	7.43	1.55	27	16	11	5	3	73	30	47	56	31.3	22.9	27.1	--	--	--	--	--	--	
EAGLECREST, ALASKA	35.7	.12	6	21	13.24	1.38	20	24	17	11	4	48	27	35	40	31.9	28.2	30.0	--	--	--	--	--	--	
HEAVENLY VALLEY, CAL	10.0	--	6	5	--	--	--	--	--	--	--	36	5	30	32	41.2	17.3	29.3	--	--	--	--	--	--	
JUNE MOUNTAIN, CALIF	22.0	--	7	5	--	--	--	--	--	--	--	39	6	29	32	38.3M	15.7M	27.0M	--	--	--	--	--	--	
MT. HOOD MDWS, ORE.	53.6	.08	12	11	6.45	1.20	28	13	11	5	0	70	26	50	61	38.6	25.7	32.2	17.4	80	56	53	260	21	
MT. RAINIER PARADISE	116.5	.14	18	23	19.03	3.25	23	18	15	13	7	137	29	87	110	35.5	24.5	30.0	7.8	26	9	35	280	23	
SNOQUALMIE PASS I-90	67.0	.13	15	2	18.04	2.76	24	17	16	11	6	55	11	34	47	34.3	25.5	29.9	9.9	29	6	--	--	--	
SQUAW VALLEY, CALIF	12.3	.07	6	5	.89	.45	5	2	2	0	0	29	7	21	25	39.6	16.6	28.1	--	--	--	--	--	--	
STEVENS PASS 5E WASH	73.5	.32	11	23	29.25	4.37	24	18	18	15	10	83	29	54	65	29.1	23.6	26.4	9.8M	30M	13M	41	120	18	
SUGAR BOWL, CALIF	21.0	--	13	5	--	--	--	--	--	--	--	65	5	51	56	41.2M	20.8M	31.0M	15.0M	59M	42M	40	90	8	

-- DATA INCOMPLETE OR MISSING

M--ONE OR MORE DAYS OF RECORD MISSING--IF AVERAGE VALUE IS ENTERED, LESS THAN 10 DAYS RECORD IS MISSING

IF M IS ENTERED IN WIND SPEED COLUMN, LESS THAN 37 6-HOUR PERIODS ARE MISSING

GE--GREATER THAN OR EQUAL TO

U.S. FOREST SERVICE
WESTWIDE WEATHER AND AVALANCHE NETWORK
FORT COLLINS, COLORADO

JANUARY 1992
AVALANCHE SUMMARY

AREA	TOTAL	TOTAL	DATES OF		MAX IN DAY	NUMBER OF DAYS WITH	TYPE OF AVALANCHE										FRACTURE LINE HEIGHTS IN FEET			VERTICAL DESCENT IN FEET				AVALS ACROSS MAJOR ACCESS ROADS NO.	
	A V A L S	A V A L S	F I R S T	L A S T			A R T I F I C I A L	N A T U R A L	SLABS						L O O S E	GE 2	GE 4	GE 6	GE 200	GE 500	GE 1000	MAX FEET			
	THIS MONTH NO.	THIS WINTER NO.							A U G U S T	A U G U S T	H A R D	S O F T	L O O S E												
CENTRAL AND SOUTHERN ROCKY MOUNTAINS																									
ARAPAHOE BASIN, COLO	21	34	9	28	9 23	8	0	7	14	11	10	0	0	21	2	0	20	8	0	900	0				
ASPEN MOUNTAIN, COLO	5	5	1	9	1 9+	5	0	5	0	0	1	0	4	0	0	0	2	0	0	450	0				
ASPEN HIGHLANDS, COL	32	46	1	28	14 8	11	0	14	18	0	27	0	5	0	0	0	25	21	13	2600	0				
BERTHOUD PASS, COLO	20	29	2	24	10 24	6	0	1	19	0	20	0	0	10	1	0	18	9	0	700	0				
BERTHOUD PASS U.S.40	4	4	8	24	1 24+	4	0	3	1	0	4	0	0	0	0	0	2	1	0	500	0				
BRECKENRIDGE, COLO	1	13	15	15	1 15	1	0	1	0	1	0	0	0	1	1	0	1	0	0	300	0				
CRESTED BUTTE, COLO	8	10	7	9	4 7	3	0	8	0	0	6	0	2	1	0	0	7	1	0	600	0				
GOthic, COLO	23	45	4	29	8 4	8	1	0	23	0	18	0	5	9	1	0	22	17	3	1700	0				
MONARCH, COLORADO	12	12	1	8	6 2	3	0	8	4	10	2	0	0	12	2	0	8	2	0	600	0				
STEAMBOAT SPRNGS, CO	3	5	8	8	3 8	1	0	3	0	0	3	0	0	2	0	0	1	0	0	240	0				
SUNLIGHT, COLORADO	1	1	25	25	1 25	1	0	1	0	0	1	0	0	1	0	0	1	0	0	400	0				
TELLURIDE, COLO	4	10	7	7	4 7	1	0	4	0	0	4	0	0	1	0	0	0	0	0	175	0				
URAD MINE, COLO	3	3	7	24	1 24+	3	0	0	3	0	3	0	0	2	0	0	3	1	0	500	0				
WINTER PARK S.A., CO	4	4	8	8	4 8	1	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0				
WOLF CREEK, COLO	9	65	7	8	5 7	2	0	9	0	3	6	0	0	3	0	0	4	0	0	300	0				
INTERMOUNTAIN																									
BIG MOUNTAIN, MONT	24	30	23	24	14 23	2	0	23	1	0	24	0	0	9	0	0	8	0	0	350	0				
BIG SKY, MONT	30	97	9	17	21 14	5	0	30	0	0	30	0	0	0	0	0	28	15	0	800	0				
BRIDGER BOWL, MONT	26	141	15	19	9 18	5	0	26	0	1	25	0	0	11	0	0	25	16	2	1100	0				
GRAND TARGHEE, IDAHO	1	3	25	25	1 25	1	0	1	0	0	1	0	0	1	0	0	1	1	0	600	0				
JACKSON HOLE, WYO	28	51	14	25	7 14	8	0	27	1	0	28	0	0	10	1	0	28	20	1	1100	0				
PARK WEST, UTAH	6	6	7	8	4 7	2	1	6	0	2	4	0	0	0	0	0	4	0	0	200	0				
WEST COAST																									
ALPENTAL, WASH	76	82	2	29	22 29	5	0	59	17	3	52	21	0	16	1	0	71	29	8	1200	0				
ALPINE MEADOWS, CAL	42	65	5	8	40 5	2	0	39	3	0	42	0	0	1	0	0	36	9	0	650	0				
ALYESKA, ALASKA	75	150	1	17	17 10	7	0	74	1	1	74	0	0	74	22	6	75	71	48	1900	0				
CRYSTAL MTN, WASH	250	303	2	31	48 21	17	0	242	8	5	237	1	7	24	2	0	233	95	2	2000+	0				
HEAVENLY VALLEY, CAL	2	2	6	6	2 6	1	0	2	0	0	2	0	0	0	0	0	2	2	0	800	0				
JUNE MOUNTAIN, CALIF	7	7	5	6	4 6	2	0	7	0	3	4	0	0	3	2	0	1	0	0	300	0				
KIRKWOOD MDWS, CAL	40	65	5	8	26 5	3	0	40	0	4	24	0	12	9	1	0	22	8	0	700	0				
MT. HOOD MEADOWS	59	136	2	29	15 2	11	0	56	3	4	54	1	0	8	3	0	32	14	3	3000+	0				
SNOQUALMIE PASS I-90	33	33	2	29	12 23	6	0	32	1	0	33	0	0	0	0	0	30	29	6	1200	2				
SQUAW VALLEY, CALIF	13	39	5	7	11 5	2	0	13	0	1	12	0	0	1	0	0	12	3	0	600	0				
SUGAR BOWL, CALIF	4	11	5	5	4 5	1	0	4	0	0	4	0	0	0	0	0	3	0	0	250	0				

-- = DATA INCOMPLETE OR MISSING
GE = GREATER THAN OR EQUAL TO
+ = ALSO OCCURRED ON OTHER DATES